INSPECTIS

4K ULTRA HD

INSPECTIS© Software for Image Capture, Analysis, Metrology and Reporting

U30 Mag:24.5x

17343 UNC 1/4"-20 Thread SUS303   Focus Stacked Picture

L1=1.25mm

L2=6.28mm

Cracks

2 mm
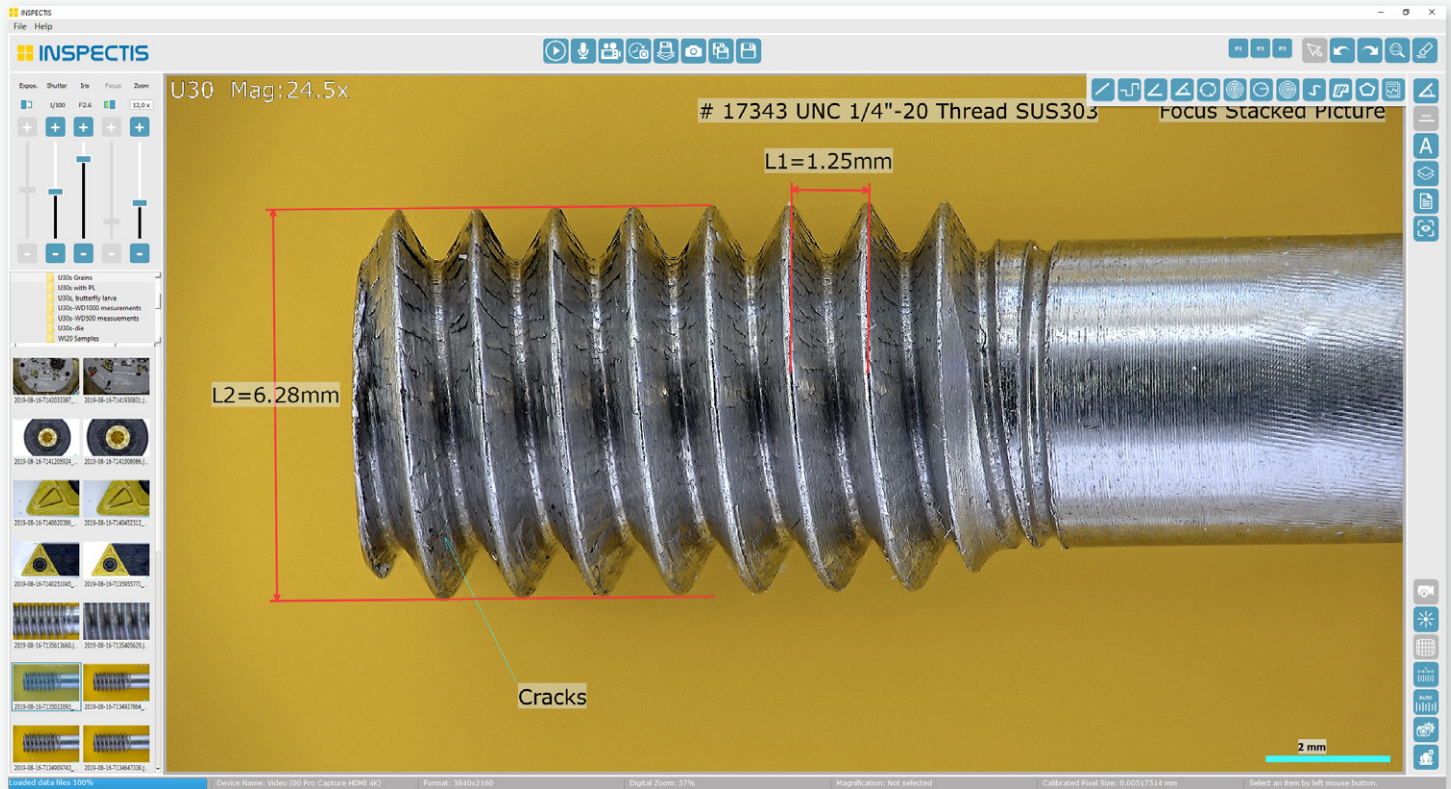
Designed for Productivity

Empowering Inspectis Digital Microscopes
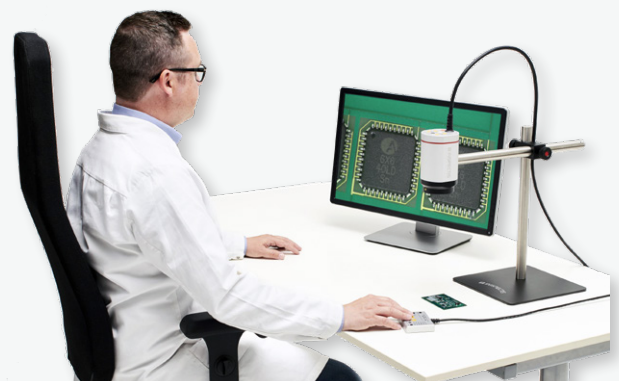
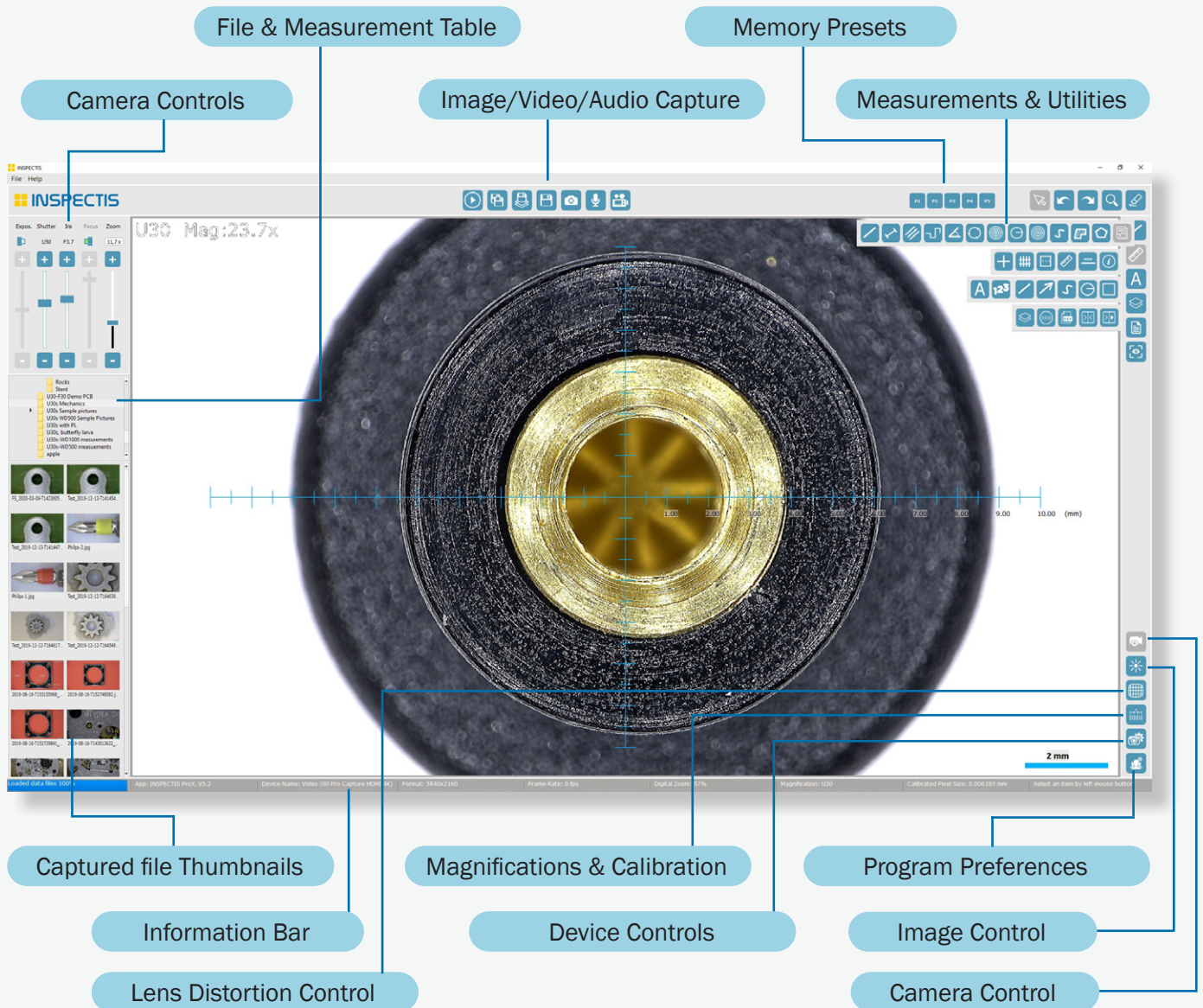*" Reduce the time spent on Inspection, Analysis and Measurements"*

Designed for Productivity

Powerful yet easy-to-use live image view, capture, utility and metrology software, specially designed for full range of Inspectis HD, Full HD, 4K and USB3.0 digital microscopes.

INSPECTIS© software provides powerful tools for calibration of device magnification, live image overlays and comparison, focus stacking, annotations and reporting.

Available in 4 functionality levels, Basics, Pro, ProX and OAI.

Icon-based User Interface

Camera Controls

File & Measurement Table

Image/Video/Audio Capture

Memory Presets

Measurements & Utilities

Captured file Thumbnails

Information Bar

Lens Distortion Control

Magnifications & Calibration

Device Controls

Program Preferences

Image Control

Camera Control

Thanks to its powerful video processing engine, user-friendly interface and streamlined workflow, INSPECTIS software reduces time spent on capture, analysis, measurements and documentation of your inspection objects.

Results can be exported or printed as certificates and reports with custom made templates.

Available in 4 functionality levels, **Basics, Pro, ProX** *and* **OAI**

Effortless Navigation and Operation

INSPECTIS© software is designed to help users navigate effortlessly. With a logical layout and graphica icons for each function, operators can quickly become familiar with the software, saving time during measurement routines and reducing the need for training sessions.

Icon-based Function Tools

Measurement tools

Distance, Poly-line, Angle, Circle, Concentric Circles, Free-form curve, Area and Polygon measurements

Crosshair, Grid & Graticule

Crosshair, Grid, Rectangle, 2D Ruler, and Reference Scale overlay on live image

Compare & Image Overlay — Edge Detection and DXF Editor

Interval Overlay live image, DXF Cad file, Digital Graticule, Compare, Compare Live, Interval Compare

Auto/Manual Calibration — Auto Distortion Compensation

Automatic Calibration of Magnifications. Automatic Lens Distortion Compensation

Annotation & Count — Drawing

Annotations and Object Count

Interval Overlay with Timer

300ms

Graticule overlay, Semitransparent overlay, Interval overlay of live image on reference picture with time adjustment

Auto & Manual Focus Stacking

Focus Stacking
Auto   Manual   90%

Automatic Focus Stacking, Manual Focus Stacking, Clear Images, Load External Images, Enhanced Focus Stacking Filter

Memory Presets

P1 P2 P3 P4 P5 P14 P15 P16

1 to 16 Camera and Lens Configurations can be saved in memory for quick recall through P1 to P16 Icons on software

Please check software version for feature availability.

INSPECTIS© **Basics**

Highly simplified software for image view, capture, and distance measurement.

Tools such as direct camera control, automatic distortion control, digital zoom, overlay grids, rectangle and crosshair, annotation on image and contrast

enhancement and reporting are available.

An easy to use yet powerful software when camera control and digital image acquisition and reporting are primary requirements.
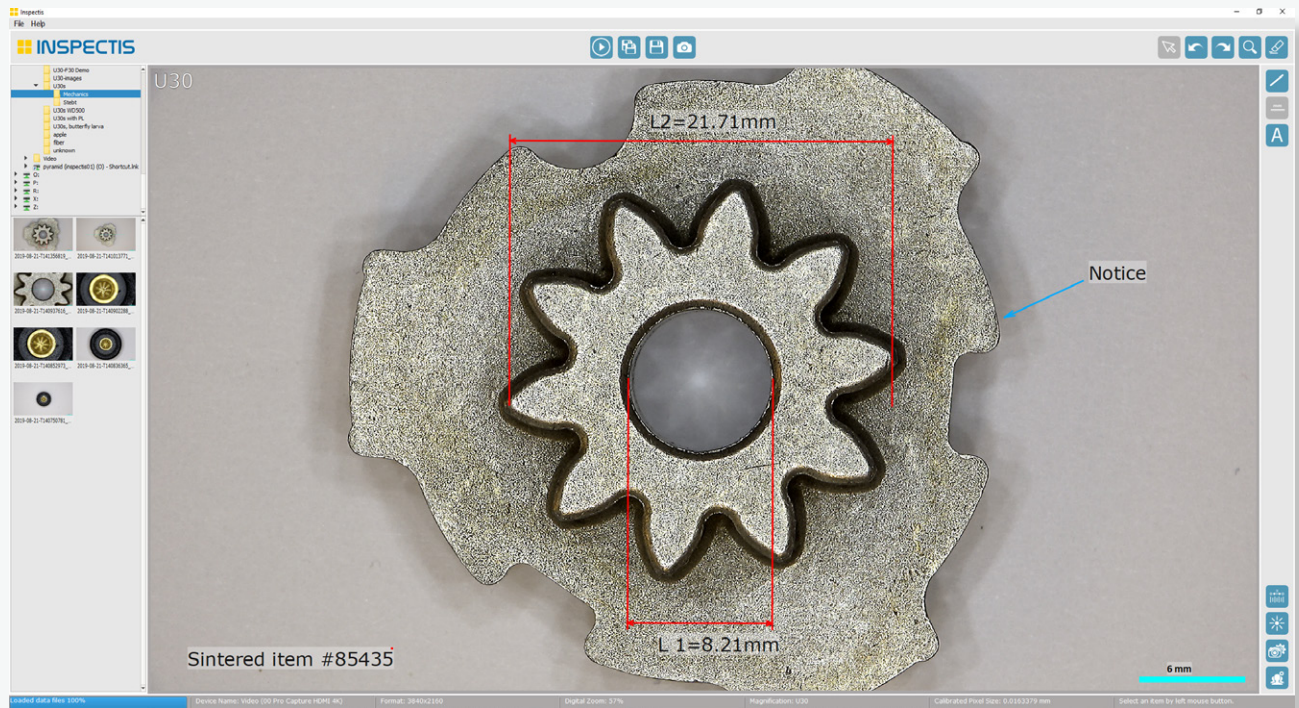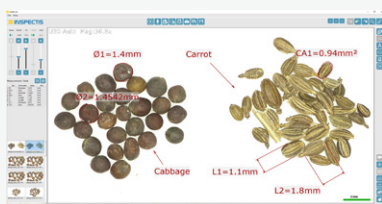

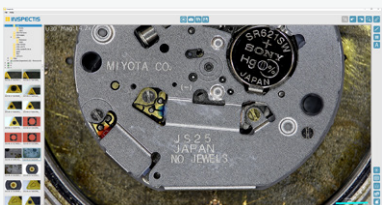## An easy-to-use digital documentation solution!

Grains, x12 Zoom with +5 macro

Micro mechanics, x9 Zoom

BGA solder bumps
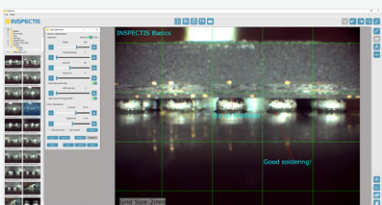
INSPECTIS© **Basics** Highlights

- Direct Inspectis camera and lens parameters control
- Automatic lens distortion correction
- Automatic calibration tracking for all zoom positions
- Digital zoom, pan and flip of still and live image
- Define and calibrate magnifications
- 16 memory presets and recall for camera parameters
- On-screen distance measurement
- Annotations and feature markup tools
- Write comments and link to each picture
- Crosshair, grid and rectangle overlay on live image
- Change font, size and colour
- Count objects on image
- Store images as jpg and png files
- Generate PDF reports and certifications
- Adjust device properties and device resolution
- Metric and imperial units
- Multilanguage interface

INSPECTIS© **Pro**

Powerful image view, capture and metrology software. A wide range of utility functions such as direct camera control, lens distortion correction, memory presets along with comprehensive measurement tools and image compare functions are available.

An easy to use yet powerful software when metrology, image acquisition, optical inspection, qualification and reporting are primary requirements.
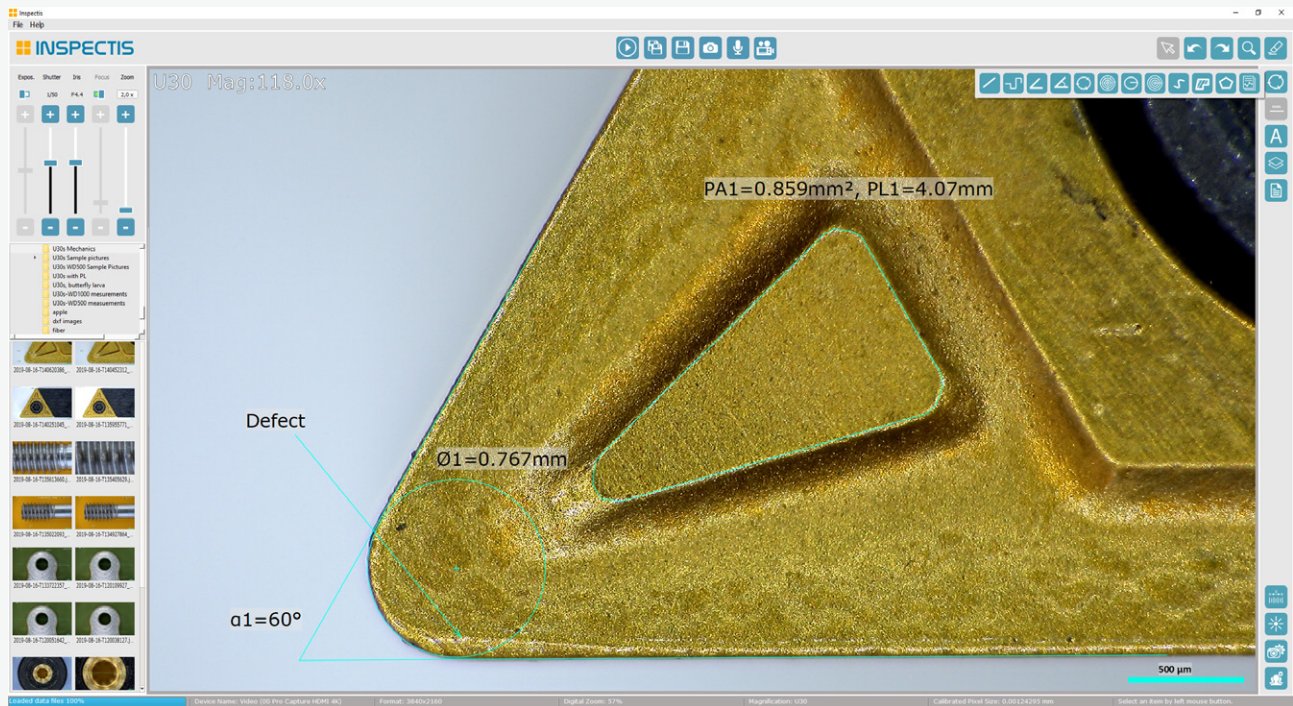

A complete measurement and documentation solution!

INSPECTIS© **Pro** Highlights

In addition to Basics:

- Free-form area, length and perimeter measurements
- Circle, angle, curve length and polygon measurements
- Drawing tools like rectangle, ellipse, curve, line and arrow
- Snap function for easy selection of geometry points
- Auto-creation of measurement table for data reporting
- Export performed measurements (TXT and EXCEL)
- Compare live to still or still to still images
- Overlay 2-dimensional mm/µm scales on live image
- Overlay semi-transparent picture on live image
- Record video and audio
- Password option for camera parameters control
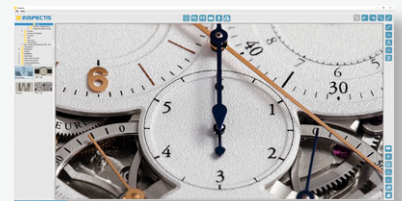
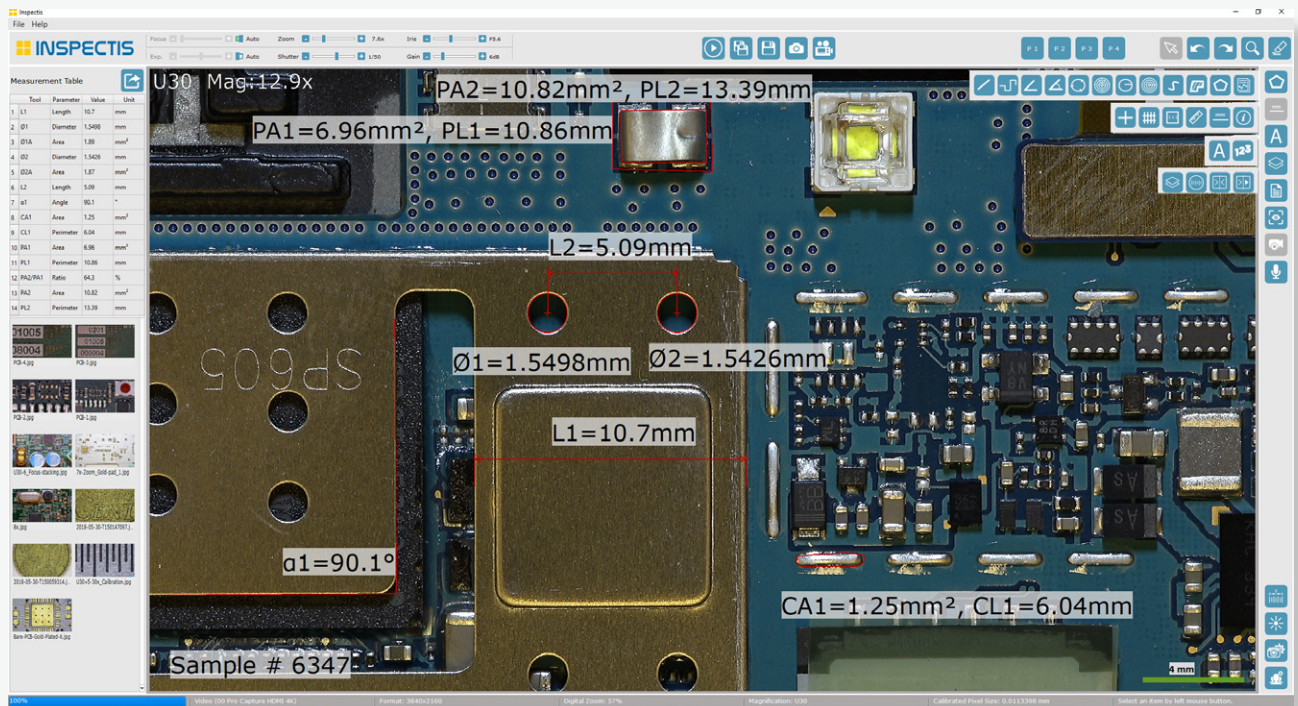Micro mechanics, x7.6 Zoom
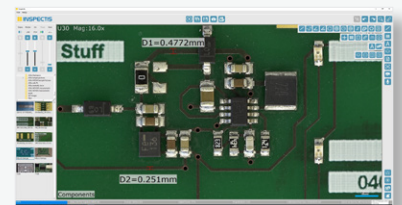
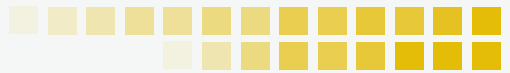Electronics PCB, x10 Zoom
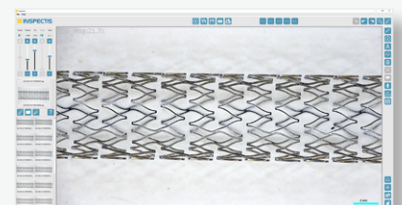
Medtech, x12 Zoom

INSPECTIS© **ProX**

Advanced metrology, analysis and utility software with real-time communication with digital cameras.
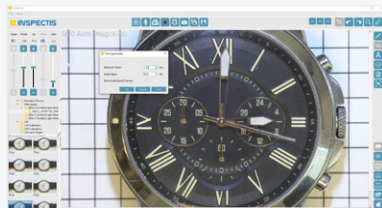
Besides metrology, analysis and documentation features, ProX provides powerful tools, automatic focus stacking and memory presets.
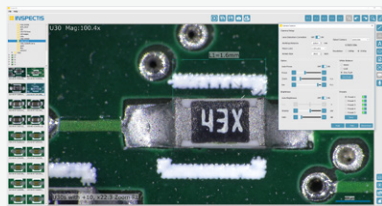

Medtech, x21 Zoom

Time lapse, x5 Zoom

Electronics, x22.3 Zoom +10

When full functionality is required!

INSPECTIS© **ProX** Highlights

In addition to Pro:

- Automatic and manual focus stacking (FoV extender)
- Automatic object counting
- Automatic Barecode, QR and Datamatrix reader
- Time lapse video recording
- Time interval Overlay Assisted Inspection
- Optical edge detection and DXF export
- DXF new, import, edit and export
- Drawing toolbox for DXF edit
- DXF overlay on live image
- DXF export as PNG file
- Digital graticule overlay on live image
- Automatic alignment of overlaid image to live image
- Automatic rescaling of overlaid image through zoom

Advanced Features INSPECTIS© **Pro, ProX** and **Overlay**

Several advanced features are available in INSPECTIS© Pro, ProX and Overlay among them:

Focus Stacking

Create images with extended depth of focus by taking 10-25 images at different focus depths to create one ultra-sharp image. (available in ProX).
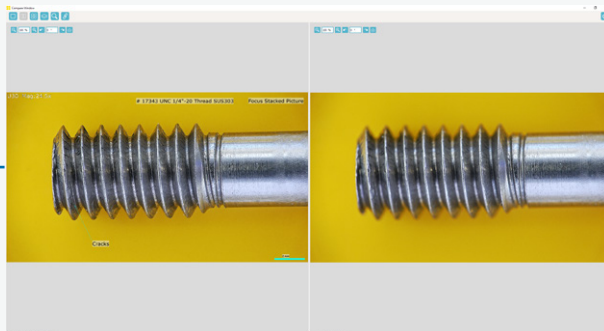

Automatic Focus Stack

Compare Windows

Compare live image to a reference picture or compare 2-4 still images to each other. (available in Pro, ProX and Overlay).

Compare Window

Overlay Assisted Inspection

Overlay of live image on a reference picture with timer controlled interval display. An efficient tool for identifying missing components, wrong polarity, misplacements and other defects on assembled PCBs. (available in ProX and Overlay).

Overlay Assisted Inspection
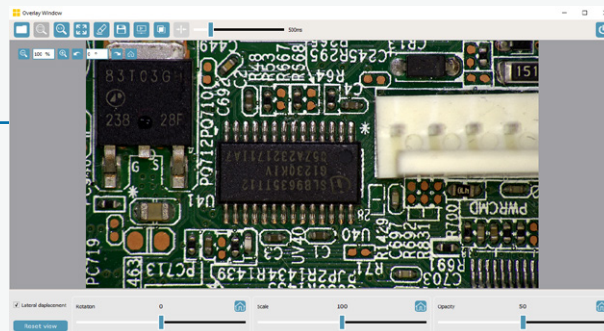
DXF editor and Overlay

Create a DXF file from your object by optical edge detection. Open an existing DXF CAD file, edit, draw patterns, shapes, add text and overlay on live image. Save in DXF or PNG format and display as Digital Graticule on live image! (available in ProX and Overlay).

DXF Editor and Overlay

Data Export and Reporting

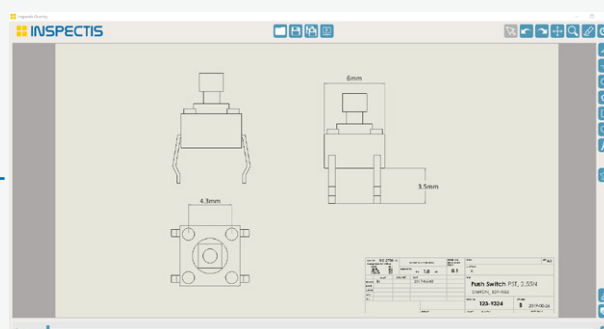## Measurement Data:

Data table is generated automatically and linked to the measured image.

Measurement Table

	Tool	Parameter	Value	Unit
1	L1	Length	10.7	mm
2	Ø1	Diameter	1.5498	mm
3	Ø1A	Area	1.89	mm²
4	Ø2	Diameter	1.5426	mm
5	Ø2A	Area	1.87	mm²
6	L2	Length	5.09	mm
7	α1	Angle	90.1	°
8	CA1	Area	1.25	mm²
9	CL1	Perimeter	6.04	mm
10	PA1	Area	6.96	mm²
11	PL1	Perimeter	10.86	mm
12	PA2/PA1	Ratio	64.3	%
13	PA2	Area	10.82	mm²

Data Export

Measurement Data Table

Reporting:

Report and certificate generator with user-defined templates. Measurement data and comments are automatically imported with selected images.

Customised Templates

Cover Summary Page

Report Pages with Data

INSPECTIS
Quality of Inspection

INSPECTION OF SINTERED TOOL

Sample Lot 23455

INSPECTIS AB
Gelbgjutarevägen 5
SE-171 48, Solna
Sweden

ID:	Lot 23455
Date:	2019-08-21
Name:	Mark Bergkvist
Notes:	Quality of edge of samples are tested at different magnification.

Test equipment:
U30s Advance Kit

Signature
Mark Bergkvist

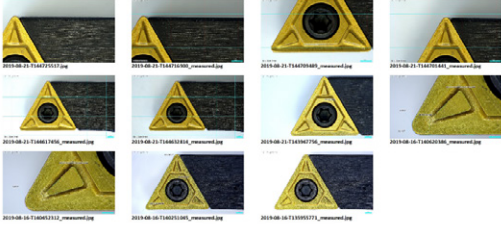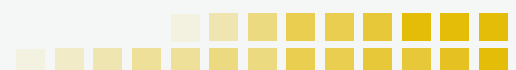# Software Versions Comparison Table

INSPECTIS© software is supplied in 4 functionality levels, Basics, Pro, OAI and ProX.

Feature	Basics	Pro	OAI	ProX
Live image view, freeze to still image	•	•	•	•
Digital zoom of still and live image	•	•	•	•
Full screen image view	•	•	•	•
Define resolution of captured video	•	•	•	•
Define and calibrate custom magnifications	•	•	•	•
Import and calibrate external images	•	•	•	•
16 Memory pre-sets and recall for camera and lens configurations	•	•	•	•
Direct camera and lens parameters controls	•	•	•	•
Automatic calibration and tracking of the entire zoom range of the camera	•	•	•	•
Automatic lens distortion correction in live image	•	•	•	•
Flip image vertically/horizontally, b/w conversion and enhanced contrast	•	•	•	•
Distance measurement	•	•	•	•
Free-form area, length and perimeter measurements		•		•
Circle, angle, curve length and polygon measurements		•		•
Select, move, adjust, erase, undo/redo measurements and annotations	•	•	•	•
Overlay grids, rectangle and crosshair on live image	•	•	•	•
Annotation and objects counts on Image	•	•	•	•
Drawing tools like rectangle, ellipse, curve, line and arrow		•		•
File folder system management	•	•	•	•
Save multiple frames to one picture	•	•	•	•
Add comments linked to images	•	•	•	•
Print images	•	•	•	•
Send files by email	•	•	•	•
Multilanguage interface	•	•	•	•
Password for supervisor lock software preferences and camera settings	•	•	•	•
Calibration tracking error compensation	•	•	•	•
Generate reports and certificates with images and measurements	•	•		•
Automatic Barecode, QR and Datamatrix scanner and Excel report			•	•
Record video and audio		•		•
Auto snap to measurement lines, ends, corners and centres		•		•
Export performed measurements (TXT and EXCEL)		•		•
Overlay 2-dimensional mm/μm scales on live image		•	•	•
Overlay semi-transparent picture on live image		•	•	•
Compare live to still or still to still images		•	•	•
Automatic object counting				•
Automatic and manual focus stacking (dept of field extender)				•
Time lapse video capture and recording			•	•
Time interval Overlay Assisted Inspection (OAI)			•	•
Optical edge detection and DXF export			•	•
DXF new, import, edit and export			•	•
Drawing toolbox for DXF			•	•
PNG export of DXF files			•	•
DXF overlay on live image			•	•
Digital graticule overlay on live image			•	•
Automatic alignment of overlaid image to live image			•	•
Automatic rescaling of overlaid image through lens zoom			•	•

Specifications

System Requirements:

CPU	Intel Core i7
Operating System	Windows 10/11 (x64 version Professional, Enterprise)
Memory	8 GB of RAM minimum
Hard Disk	500 GB of Free Space
Display	Full HD. 4K, 3840×2160 pixels recommended.
Ports	1x USB2.0 port 1x USB3.0, USB3.1 or USB3.2port (5Gbit/s) 1x PCIe Gen2 x4 (If PCIe HDMI capture is used)
Recommended Computers	Station: HP Workstation Z2, Intel Core i7, @5.4GHz, 16GB RAM Laptop: HP Elite Book, Intel Core i7, @4.2GHz, 6GB RAM 15.6", Full HD

Ordering numbers Software with Video Converter:

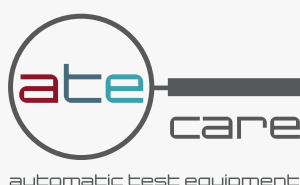|	
INSPECTIS© Basics with Full HD USB3.0 Video Converter	HD-031
INSPECTIS© Pro with FHD USB3.0 Video Converter including USB dongle and communication cable	HD-032
INSPECTIS© ProX with FHD USB3.0 Video Converter including USB dongle and communication cable	HD-032-PX
INSPECTIS© Basics with 4K HD USB3.0 Video Converter	HD-043
INSPECTIS© Pro with 4K HD USB3.0 Video Converter including USB dongle and communication cable	HD-044
INSPECTIS© ProX with 4K HD USB3.0 Video Converter including USB dongle and communication cable	HD-044-PX
INSPECTIS© Basics with 4K HD PCIe Video Converter	HD-045
INSPECTIS© Pro with 4K HD PCIe Video Converter includingUSB dongle and communication cable	HD-046
INSPECTIS© ProX with 4K HD PCIe Video Converter including USB dongle and communication cable	HD-046-PX

Ordering numbers Software:

INSPECTIS© Basics. Image Capture software with Built-in Camera Controls	HD-131
INSPECTIS© Pro including USB dongle and communication cable	HD-132
INSPECTIS© ProX including USB dongle and communication cable	HD-133
INSPECTIS© OAI including USB dongle and communication cable	HD-134
Upgrade INSPECTIS© software from Basics to Pro including USB dongle and communication cable	* -BP
Upgrade INSPECTIS© software from Basics to ProX including USB dongle and communication cable	* -BX
Upgrade INSPECTIS© software from Pro to Pro-X	* -PX
Inspectis USB communication Cable (optional for INSPECTIS© Basics)	HD-035

INSPECTIS© software is delivered with best-on-the-market plug&play USB3.0 and PCIe video converters.
INSPECTIS© software is compatible with other microscope cameras!